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THOUGHTS

IMPROVING THE AGRICULTURE.

AND

BETTERING THE CONDITION OF THE POOR

OF THE COUNTY OF HERTFORD;

IN NINE LETTERS ADDRESSED TO THE GENTRY, CLERGY, AND YEOMANRY, OF THE COUNTY.

- 1. Introduction.
- 2. Agricultural Schools.
- 3. Agricultural Schools.
- 4. Scottish Banks.
- 5. Emigration.
- 6. Agricultural Returns. Public Works.
- 7. Education.
 8. Education.
 9. County Society.

Ce que nous avions sur le cœur, nous l'avons dit. Ce n' est plus ici une question de convenance ou de politique, c'est une question de vie, pour vous, pour la société tout entière.

OXFORD,

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LETTER L

INTRODUCTION.

THE following Letters have for their principal subject the best means of improving the condition of the great mass of the people. The increase of their happiness is the proper end of all human laws and institutions, and to it, therefore, they ought all to be subservient. Tried by this test ours will be found to be grievously defective. It is matter of melancholy notoriety, that there exists within our borders a great deal of suffering and a great deal of vice; and it is equally painful and alarming to reflect, that this deplorable state of things is daily becoming worse. We hear of men living through our cheerless winters upon five shillings a week, and we hear without much astonishment of discontent and reckless insubordination. We perceive that the evils under which society labours have increased within our recollection, and we believe that they will continue to increase. Under these acknowledged circumstances, it becomes every body's duty to contribute as much as he can to the removal or mitigation of these evils; and any man who has a plausible scheme to suggest, is entitled not only to a candid, but to an indulgent hearing.

In the first place, then, what is the present state of the labourers in agriculture? The average rate of wages throughout the county can scarcely exceed ten shillings a week; and out of it, a man has to keep a wife, and commonly three or four children. ducting 1s. 6d. or 2s. for rent, and something for clothes, there will remain about 1s. 3d. a head to supply the family through the week with food and firing; and the consequence is, that to say nothing of the comforts of life, there are multitudes who have not, or have hardly, bread enough to eat. be the case with a man in regular employment, what becomes of him who cannot get work? He obtains, perhaps (and perhaps not,) from the parish, as much as the gaol allowance of bread, and he necessarily ceases to be industrious, when his industry ceases to be productive. The overseer soon comes to look on him with aversion, and to treat him harshly, after which he cannot long continue to be respectful; and if despair produce in him its usual effects, he will gradually acquire the habit of escaping from its gripe by plunging into any temporary gratification within reach, and so lose the restraints of prudence and morality. Thus he who began by being miserable, ends in being vicious, he becomes what is called a loose, bad fellow; and then commences the reaction of the bad upon the good. Wages are so low, that if the loose fellow is to be kept from starving, he must have given him as much food as the industrious labourer can obtain; then this latter feels it a grievance to be obliged to toil early and late for the same recompense as a parish pauper gets for doing nothing; his place becomes of no value to him, and thus the authority of the master and the gratitude of the servant decay and

perish together.

Such is the actual state of a considerable number of the agricultural labourers in Hertfordshire. The next step in this downward progression seems likely to bring us to a point of great danger and difficulty—so great, indeed, that the firmest minds can scarcely contemplate it without misgiving. Specific remedies may not exist, but palliatives certainly do, and are within our power; and if we neglect to apply them, severe will be the punishment on us and on our children.

The proximate cause of the mischief is the want of sufficient employment for the people; and as far as concerns agricultural labourers, the disproportion between the numbers of the people and the quantity of employment, seems daily to be getting greater and greater. It is notorious that the population is increasing fast. According to the returns made to Government, the population of Hertfordshire has increased during the present century by about fourteen per cent. in ten years; and I have stated in the table below the actual numbers during the last thirty years, and also the numbers at which we shall arrive in the next, supposing the same rate of increase to be maintained:—

In 1801	 97,500	In 1841	 163,400
1811	 111,600	1851	 186,200
1821	 129,700	1861	 212,300
1831	 143,300		

Having already got a great many more than we know how either to feed or employ, we shall have an addition of more than two thousand every year. In thirty years time our increase will have amounted to seventy thousand souls! I have never heard any scheme suggested for providing a proportionate increase of employment; on the contrary, it is plain that there are causes in operation the tendency of which is to lessen still further the demand for agricultural labour. Every improvement in machinery will do so. Whoever shall invent a dibbling machine or a mowing machine, will throw numbers out of work. Whenever steam shall be successfully applied to ploughing, the work will be done in a quarter of the time, and with a quarter of the men; and, to all appearance, these dangers are neither small nor distant. who has paid attention to the subject would be surprised to hear to-morrow that either of these things had actually been accomplished; they will happen as surely as the winter solstice, though I think not quite so soon. Seeing, then, that foul weather is manifestly approaching, it becomes us all to join in making such preparation for it as the nature of the case will admit. Whether or not, with all our courage and seamanship, we shall be able to ride out the storm in safety, can be proved only by the event; but I protest against, and deprecate in the most earnest manner, that spirit of lethargic indifference which appears to possess so many amongst us. People seem to contemplate the coming of extraordinary events with a kind of stupid incredulity, arising not at all from want of evidence that the events are really at hand, but from a sort of inability to open their minds wide enough to receive them: but this is not the way in which dangers are to be shunned, or difficulties surmounted; the fire will not "go out of itself," whatever Sir Abel Handy may

say; but though it be every man's duty to exert himself in his station towards averting the impending crisis, it is in a more peculiar manner the business of the landed proprietors; they certainly stand in the gap; they pay three-fourths of the poor's rate, and their rents will be the first points to be flooded by the rising tide of pauperism. Indeed I have heard it publicly stated, on high authority in this county, that if the numbers of the people continue to increase for only five-and-twenty years more at the same rate as they have done for thirty years past, the poor's rate will swallow up the whole rent of the land.

LETTER II.

AGRICULTURAL SCHOOLS.

At the outset of this inquiry, it may be as well to premise that I contemplate no sudden cure of the evils which afflict us, and I presume that they would not have been permitted to attain their present height, if there had existed among us any political El Hakim who could remove them with a touch of his talisman. If the disorder lie where I think it does, it is to be combated only by the introduction of good Institutions, which must necessarily be slow of growth. There is no sticking up a forest in a single year, (unless, indeed, we had the assistance of Sir Henry Steuart of Allanton;) and if this be true, we ought to lose no time in beginning to plant, that in due season we may have shade and shelter. Let us begin by stating the evil, and then proceed to inquire for the remedy. evil is, that a large proportion of the labouring classes of this county are unable to procure a comfortable

subsistence for themselves and their families:—this is the original disorder, from which, as it usually happens, many others have sprung. The ability of the labourers to sustain their families in comfort, depends on the rate of wages; on the other resources besides wages which may be made available, and on their moral and intellectual qualities. I propose to take these incidents one at a time, and to begin with the rate of That depends, as all the world knows, upon the proportion between the number of labourers and the demand for their services; and we shall contribute towards the object in view by either increasing the quantity of employment or diminishing the number of the people. The only motive which can induce a farmer permanently to employ labourers, is the hope of making profit of their labour. If he could employ more men profitably to himself, it is to be presumed that he would do so. Now, I understand it to be the opinion of all men qualified to judge, that a great proportion, if not the whole of the labourers of the country, might be profitably employed upon the land, if the farmers were possessed of sufficient skill and capital for the purpose. The chain of reasoning here used, is short and simple, and I think the conclusion is irresistible. The condition of the people will be improved when they can get more work,-but they will get more work when the farmers have more skill and capital; therefore, the way to improve the condition of the people is to increase the skill and capital of the farmers. Now, I conceive that their skill may be indefinitely increased by a due acquaintance with the physical sciences, and that adequate funds for carrying on any system of husbandry would

flow from the introduction of the Scottish mode of banking.

And here, again, I have to protest against being considered so visionary as to expect any sudden change from these measures. Whoever supposes that he can teach chemistry or any other science to grown men imagines a vain thing; few people learn any thing that requires study after they are twenty, and of all classes of men, farmers are the least liable to the charge of seeking after new things. In common with almost every branch of knowledge, the sciences are best taught in youth; the proposal, therefore, is, that schools should be established in this county, at which farmers' sons may be taught the elements of the physical sciences-for example, chemistry, botany, the anatomy and diseases of cattle, and the habits of the more destructive insects-not by any means with a view to supersede the practical knowledge which now conducts the agriculture of the country, but to be used in addition and in subordination to it.

There would be no difficulty in carrying this scheme into execution, if its utility were generally perceived. Farmers' sons go to school as it is, and the alteration would consist in differently employing their time whilst they are there—in teaching them something useful, instead of the contemptible trash which is sometimes dignified with the name of learning. There is nothing formidable about it; neither the time nor the expense need be much increased, and the practical benefits resulting from it would be immense. It would require a volume to do justice to the subject; but, narrow as my limits are, I will endeavour to suggest a few of the more obvious advantages. And first, with regard to

chemistry:-The fertility of every soil is mainly dependent on the ingredients of which it is composed, and on the proportions in which they are mixed. learn, therefore, what these ingredients are, and in what proportions they exist, must be the first object of him who would remedy any thing amiss in them. Now, with the assistance of chemistry, this knowledge may be always attained with ease and certainty; and in no other way that I am aware of. And, supposing a boy to have been taught at school what are the ingredients which constitute the most fertile soils, the best possible mode of treating any given soil will at once be apparent to him, from a comparison of its ingredients with what may be called the standard of fertility;--that which is in excess must be taken away, and that which is in deficiency must be supplied. As for any supposed difficulty in the case, can any thing on earth be easier than to observe whether a mixture turns red or green on the application of a test,—whether or not it effervesces with an acid, whether it burns when heated,—and what weight is lost by heat? The knowledge sought would commonly be attained by some such simple means as taking an ounce of earth from three or four different parts of the field, maixing them with water in as many wine glasses, and pouring a few drops of various acids and alkalis upon them. Soils are sometimes rendered barren by the presence of some acid in them,-the knowledge of this fact is arrived at by pouring half a dozen drops of any blue vegetable infusion upon the water in which they are mixed, which in that case will turn red; and the cure is obvious and certain-namely, dressing with quick lime, which will combine with and neutralizethe acid. A notable instance of mistake and loss occasioned by the want of this elementary knowledge. occurred in the neighbourhood of Doncaster, where the farmers incautiously dressed their land with lime from a neighbouring hill which contained a large proportion of magnesia. Their crops were spoiled at a great expense, the which might all have been saved by an acquaintance with chemical tests. though these insulated mistakes are mortifying enough. they do not affect the general agriculture of the kingdom in a way to be at all compared with the daily and hourly waste of manure, arising from its not being laid on in its most efficient state. Mr. Coke, of Norfolk, says, his manure goes twice as far as it used to do, since he has taken care not to let it ferment too much. The point at which the fermentation has gone far enough, is indicated by chemistry in a manner beautiful from its > simplicity. Moisten a piece of paper with muriatic acid, and hold it over the steam arising from the dunghill; if, on touching the paper, the fumes become white and dense, you may be sure that the decomposition is going too far, because this appearance indicates the disengagement of volatile alkali, which is one of the most valuable elements of the manure. The mode of making a complete analysis of the soil is certainly not quite so simple as this, but it is easily learnt, and would be frequently necessary, in order to show the proportions in which the several ingredients existed in The apparatus necessary for these experiments is neither large nor expensive:—a few wine glasses, a Wedgewood pestle and mortar, a test box, some Hessian crucibles and evaporating dishes, a lamp, half a dozen glass bottles, and a quire of blotting paper. With the

assistance of these implements and a little elementary chemical knowledge, the best possible mode of reclaiming every acre of waste and barren land in the kingdom may be known with certainty to the possessor; and that would be something to a kingdom which contains millions of acres of waste land, and myriads of idle men with hungry families. And what possible objection can be raised to the introduction of knowledge so extensively useful? I know there is a prejudice not unnatural against what is called book learning, because the pedantic and unskilful application of principles derived from books has often led its possessors into ludicrous mistakes; but let it be observed that these mistakes, as well as all others, must have arisen, not from knowledge, but from the want of it. The objections, whatever they are, lie as strongly against using a watch or a weatherglass, a thermometer or an almanack, which, no doubt, were all called newfangled things when they were first introduced; but it is wasting time to argue any thing so plain.

LETTER III.

AGRICULTURAL SCHOOLS.

If chemistry occupy the first place among the physical sciences in practical value to agriculture, I think the second is due to botany—or more correctly, vegetable physiology. Plants which it is the farmer's principal business to rear, consist of various organs, each exercising peculiar functions: and if any of them become disordered or deranged, the plant will be unhealthy. Now, vegetable physiology professes to give an account of those organs and their functions,—to inform us what

it is that causes the seed to germinate, -what substances are taken up by the roots,-what circumstances they are which cause the roots to imbibe freely,-what change the sap undergoes in the leaves, what will hasten the ripening of the seed,—and by what means new varieties of plants are to be obtained. The practical applications of this knowledge are innumerable, but I have not space to mention more than one or two. Perhaps the chief secret in farming is to know how to make manure go as far as possible. Now, it may either itself furnish the elements of the food taken in by the roots or leaves of the plant, or it may somehow or other stimulate it to take in its appropriate food (whatever that may be) more copiously. When vegetable physiology and chemistry shall have mastered the subjects, we shall probably perceive that much of what we now lay on land, (in the state in which it is now laid on,) is useless or injurious; -- precisely as in medicine, it has recently been discovered that all the virtue of Peruvian bark lies in a very small part of it, called the quinine; and that though the fever was cured by the grain of quinine, yet the stomach had to suffer the inconvenience of the ounce of sawdust with which it was mixed. There are lands in India which bear crops for an indefinite period without manure; and if any body thinks it impossible that our lands should be made to do so, I beg to ask, why?

In the two sciences of chemistry and botany combined, we have also the means of causing seeds to germinate and grow much more rapidly than by the common way; and we possess the power (thanks to Mr. Knight) of obtaining new and improved varieties of our cultivated plants, by impregnating the ovarium

of one individual plant with the pollen of another—(crossing the breed as it were.) In this way Mr. Knight and others have obtained excellent varieties of many of our fruits and vegetables. Now, if by the discovery of earlier varieties, and by hastening their germination and growth we could get our first crops to ripen a few weeks earlier, we might systematically have two crops every year, to the incalculable increase of the wealth and resources of the kingdom.

Entomology is another very important and much neglected branch of science. If it were possible to ascertain the amount of mischief done by insects in a year, we should set a juster value on the knowledge of the means of destroying them. Flies, grubs, slugs, weevils, wire-worms, maggots, "the caterpillar, the canker-worm, and the palmer-worm;"—the very enumeration of them is terrific. It is frequently easy. to destroy them in one state, or at one season, and not so at another: we ought, therefore, to know them under all their changes, and to be acquainted with their place and mode of existence at all seasons of the. year. Most insects pass through four stages—the egg, the larva, the chrysalis, and the imago. The larva or caterpillar state is that in which it is most destructive; but if we knew where to find the chrysalis in the winter or how to recognize the image or butterfly in the spring, before it had deposited its eggs, we might exterminate the parents with ease, whereas their multitudinous progeny are too strong for us. This species of warfare has actually been adopted with great success by Mr. P. Musgrave, near Edinburgh. Boys. would be keen enough both to acquire this knowledge and to practise its precepts, for all boys have the organ of destructiveness. At the proper season let them collect every species of caterpillar and chrysalis they can find, and preserve them till they turn into butterflies, and they would meet with facts the most instructive and entertaining. The grub which preys on the roots of grass is the larva of the cockchafer; the wire worm is the progeny of a small beetle, called the Elator Segetis. For the fullest particulars on this subject I refer the reader to Kirby and Spence's Entomology, a work full of science, and at the same time as amusing as a fairy tale.

THE STRUCTURE AND DISEASES OF CATTLE .- According to Mr. Colquhoun's estimate, there were, as long ago as 1812, in the United Kingdom, one million eight hundred thousand horses, ten million horned cattle, and forty-two million sheep and lambs. There are no tables published of sickness and mortality among cattle, but out of fifty-three millions the deaths from disease must amount to a great number in the course of a year; and it cannot be doubted that many of them might be preserved, if those who tend them had a more accurate knowledge of the causes and mode of treatment of their diseases. The men who have the immediate care of the horses, cows, and sheep on a farm, for the most part know absolutely nothing about the matter, and, generally speaking, the veterinary surgeons know as little, although we certainly have in this neighbourhood eminent instances to the contrary. If any thing ails a horse, and the doctor is sent for, the answer not unfrequently is, that he cannot come that night himself, but he has sent the horse a drink, and will call in the morning. The drink is commonly Daffy's Elixir, and if the disorder happens to be what

is very frequent, namely, an inflammation of some of the viscera, the chances are that the horse will die of the remedy, for when the doctor and the disease combine, there are two to one against the patient. The farmer, therefore, should understand the subject himself; a little knowledge might save him many a valuable animal; and besides, it frequently happens that the remedy, to be effectual, must be prompt, and that the beast will die before you can fetch the doctor, even supposing him to be worth fetching.

As I proposed to give a sample only, and not a catalogue, of the sciences, useful to agriculture, perhaps the foregoing may suffice, and I may omit the consideration of meteorology, mechanics, geology, &c. from which as pregnant instances might be drawn. But, besides the particular facts learnt at school in a course of education such as I have proposed, the boys would get a facility and a taste for inquiring further; they would get a desire for knowledge, and a habit of reading, by which the stock of knowledge once acquired would be preserved, and additions to it would be continually made. A demand would arise for publications detailing the daily discoveries in science. If a new and useful vegetable were found in any quarter of the globe, on the Swan River, the Orange River, or the La Plata, it would be known in Hertfordshire in six months, and might be grown in Hertfordshire in twelve. It is estimated by a writer in the Quarterly Review (vol. xxxvi. p. 396.) that the introduction of the turnip into England has increased the annual value of our agricultural produce by as much as would pay the interest of the national debt; and, moreover, discoveries, when made, would diffuse

themselves at a somewhat quicker pace than in times past. Potatoes were brought into Ireland about the year 1610, and they did not arrive at Cantire, in Scotland, where the soil is sandy, and where they have since succeeded very well, in less than a century and a half. It took the same vegetable forty years to travel from Lancashire to the neighbourhood of London. This rate of progression could not exist with a race of farmers educated after the fashion here suggested. Such education would also protect the mind from the inroads of many senseless prejudices. ley, an agriculturist, famous in his generation, used to account for the blight in corn, by saying it was occasioned by insects which came from Nova Zembla, "where the cold is intense enough to give life to these. small creatures." This is merely laughable, but there are few prejudices which are not mischievous as well. In the Farmer's Calendar, p. 155, it is stated, that in some parts chalk-stone surfaces are chalked and limed, and in others, lime is laid upon burning sands as a cooler. And at p. 162, the author says it was the plan of the late Mr. Bakewell to dry his dung to the fineness of a pinch of snuff, which plan he had ever thought absurd and unprofitable in the extreme, and I believe my readers will be much of the same way of thinking.

If, by the combined operation of all these means, the produce of our land can be increased in the proportion of three bushels of wheat to an acre, the land-lord's rent will be doubled, for he does not get more than the price of three bushels now upon an average.

Many of these improvements would require the outlay of a larger capital, which an amended banking system would certainly supply; and, in my next letter, therefore, I propose to shew how, by these means, the farmers may be accommodated with what is often called the sinews of war, but which might, with equal propriety, be called the sinews of peace, for it is often very difficult to keep the peace without it.

LETTER IV.

SCOTTISH BANKS.

The thing to be accomplished is, to furnish capital to those farmers who may be in a condition to employ it profitably. For effecting which purpose, it appears to me that a good system of banking supplies an expedient perfectly practicable and efficient. The system used in Scotland is, in my estimation, a model of what such a thing ought to be, and, I therefore, proceed to describe it. The following account is taken principally from an excellent article on that subject, in the 42d volume of the Quarterly Review:—

In the year 1826 there were in Scotland thirty-two banks. The National Bank had one thousand two hundred and thirty-eight partners; the Commercial Bank had five hundred and twenty-one; and the Aberdeen Town and Country Bank, four hundred and forty-six. Of the remaining banks, there were three in which the number of partners exceeded one hundred; six in which the number was between twenty and one hundred; and seventeen in which the number was short of twenty;* and the great capital and high character of these banks renders the establishment of a weak

The number of banks accounted for is only twenty-nine;
 but the error is that of the Reviewer.

one practically impossible. All the banks which issue notes are joint stock companies, consisting of a great number of partners, and possessing a large capital, not merely subscribed, but actually paid up, and invested in mortgages and government securities; ready always to cover any losses which the bank may sustain in its transactions. The directors place annually before the subscribers an accurate account of the affairs of the establishment. The amount of the dividends furnishes a perfect index to the prosperity of the bank, being always paid out of the annual profits, and never out of the subscribed capital. The price of the shares also supplies another criterion of the state of the establishment, being as regularly sold as bank stock or canal shares in this country, and varying, of course, with the amount of the dividends. No branch of the system is involved in mystery or concealment. public know the amount of the subscribed capital, and, by the means just mentioned, they know what. profit it is making.

Obtaining in this manner the confidence of the public, they are enabled to attract the spare capital of all classes by allowing interest upon deposits. They allow one per cent. less than their lending price, and this constitutes their profit: and most people prefer taking the smaller rate of interest in consideration of the advantages of dealing with the bank; perfect security, regularity in paying interest, freedom from the commanding their principal whenever they may want it;—and these are advantages which no man dealing directly with the borrower can enjoy.

But they only borrow in order that they may lend;"

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-their profit is derived from lending, and consequently it is their business to lend wherever they can do so with safety. Whoever, therefore, wants money, and has security, is a welcome visiter at the bank. The usual way, where a man wants capital to carry on his business, is to establish what is called a cash creditthat is, to get somebody to be security to the bank for the sums which he may have occasion to draw out; and the great advantage arising to the borrower from this method is, that he has not to pay interest from the beginning upon the whole five hundred pounds, or five thousand pounds, or whatever sum it may be that his enterprise requires, but only on the twenty or thirty pounds which he may draw out from time to time; and as he does not pay interest on a single pound an hour before he actually wants it, so neither does he for an hour after. For, as the proceeds of his undertaking begin to come in, he carries to the bank every week the twenty or thirty pounds which he has received at market, and it is immediately carried to his credit, and taken off the sum for which he is paying interest. The application of this banking system to the subject more immediately under our consideration is so ably shown in the Review, that I shall take the liberty of transcribing the very words. "To those who are at all acquainted with the subject, it is well known that nothing forms so powerful an impediment to agricultural improvement as a deficiency of capital. farmer may be skilful, enterprising, and economica; but without the command of an adequate supply of capital, all these admirable qualities will prove unavailing; or, at the very least, their effects will be greatly retarded and circumscribed; -hence the slow

progress of agriculture in many parts of England. It is wrong to suppose that the English farmer is naturally less enterprising than persons of the same class in Scotland; he would enter upon a career of spirited improvement if he could, but he possesses not the means necessary for this purpose, neither is his landlord in a condition to supply the deficiency, and the inevitable consequence is, that no improvement is effected or undertaken. Indeed the consciousness that he cannot command the required capital frequently prevents the English farmer from forming even the wish to adopt a more spirited and profitable system of tillage. Very different, indeed, is the condition of the Scottish cultivator:—the moment he feels inspired with a desire to improve the tillage of his land, he encounters no difficulty in commanding the necessary supply of capital. If he possess a fair character for probity and industry, the sinews of improvement are instantly placed at his disposal,—he obtains a cash credit at the bank of the district,—he draws out whatever he wants to pay for labour or for other purposes,-he pays in the proceeds of the produce which he may have sold, and is charged with interest on the balance which may from time to time stand against him in the bank books. In the progress of time he begins to reap the fruits of his enterprise and industry,—he gradually draws less out and pays more in, until at length his relation to the bank becomes changed,—from being a debtor he becomes a creditor,—instead of deriving accommodation under a cash credit account, he becomes a depositor of his surplus savings and profits, which are then lent out to other farmers of the district, who are sure to be instigated to embark in the same

profitable career of improvement, both by an example of success, and by the facility of borrowing capital."

Within these few days I have very opportunely been favoured with a copy of the minutes taken before the Lords' Committee on the poor laws, in 1831, of which Lord Salisbury was Chairman, and I have the greatest pleasure in extracting from the evidence of the Rev. F. J. Faithfull, some passages strongly confirming, or, I should rather say, unanswerably proving the great practical utility of such Institutions as these Scottish Banks. Mr. Faithfull states that in the parish of Hatfield there are generally from ninety to one hundred persons thrown upon the parish for work at the commencement of the winter; and that there is certainly sufficient employment upon the land for the whole population, if the farmers had capital to employ them. further states that he derived his information from the farmers themselves of that parish, assembled in great numbers at his own tithe dinner.

Can evidence be more conclusive, or facts more important? Here we have in one parish a hundred men annually degraded to the rank of paupers, and we possess and neglect the means of employing every one of them profitably! It is so strange as to be searcely credible, though resting on absolute demonstration. A specific cure exists for evils which our own folly has brought upon us; we refuse to adopt it,—and we lay all the blame upon the "geometrical ratio!"

LETTER V.

EMIGRATION.

"And Lot also, which went with Abram, had flocks, and herds, and tents. And the land was not able to bear them, that they might dwell together, for their substance was great, so that they could not dwell together. And Lot lifted up his eyes and beheld all the plain of Jordan, that it was well watered every where, even as the garden of the Lord, like the land of Egypt as thou comest unto Zoar. And Lot chose, him all the plain of Jordan; and they separated themselves the one from the other."

If land, fertile as the shores of Lake Huron, could be had in unlimited quantity in any part of the threekingdoms, our embarrassments would instantly vanish. Our unemployed people would settle upon it,—they would raise for themselves the necessaries of life in abundance, and they would improve the condition of the manufacturers as well as their own, by sending them food in exchange for clothing. Every class of society would be benefitted. The master manufacturer would make greater profits—the capitalist higher interest, and the landlord would save the amount of the poor rates;—these points might be very easily proved, if it was thought they were likely to be disputed. But whatever good effects might be expected. from the cultivation of new land in England, the same would arise from the occupation of land in Canadaminus the expense of the transit. Now we have the means of conveying men or goods across the Atlantic to an extent unquestionably superior to any other nation, ancient or modern. Our navy costs us about five millions a-year, and a few vessels might be employed in carrying out emigrants quite as usefully as in sailing from Portsmouth to Malta and back. discussing the subject of emigration, there are three parties to be considered—the individual, the parish, and the kingdom. With regard to the individual, the benefits are great and manifold; here he has a scanty allowance of bread, and no hope of amendment; there he would soon have as much flesh and fowl, meat and drink, as he chose to consume, with the certainty of obtaining as much freehold land of his own as he and his children could cultivate. I forbear details upon this subject for the sake of conciseness. And to those who may be in search of a short and popular digest of information on the subject, I recommend a little pamphlet called, Martin Doyle's Hints on Emigration. It costs only a shilling. As to the effects of a wide system of emigration upon the nation at large, they appear to be such as are stated above; and I think the benefits to the individual and the nation are beginning to be pretty generally admitted. But it is the effect upon the parish, upon those who must bear the expense of the system, that requires the greatest consideration. The object being to prevent the accumulation of labourers beyond the effective demand for their labour, we must first ascertain what ratio of increase it is which leads to this accumulation; and then, what would be the expense of conveying the annual increase to the colonies. For the sake of simplicity, letens suppose the case of a parish containing a thousand souls, from which it will be easy to calculate the corrections necessary for making the reasoning applifrom the population returns that, on an average of the kingdom, there have been something upwards of a third more births than deaths every year; and, consequently, if there were a third fewer births, the population would remain stationary; but if there were a third fewer births, the population would remain stationary; but if there were a third fewer marriages, there would be a third fewer births; and, therefore, it seems demonstrable that if we have the means of conveying to Canada one married couple in three, the undue accumulation of the people will be prevented. I say always a married complet because it is not fit that man should go alone; and because, if the females were left behind, one of my most important postulates would be in danger of a practical refutation.

The number of marriages which has led to the present overflow of people is found, by the same returns, to be seven and a half in one thousand annually; onethird of which (or two and a half) is the number whose emigration would keep the population stationary. I presume that we could provide for some increase at home, and that we may take two couples sevent as the number to be provided with the means of emigration. And, according to the official statements published by the Colonial office; it would cost the parish sixteen pounds each couple; but as it is not likely that they would be induced to go just at the cheapest -moment, let us suppose the emigration delayed till they had two children. A child under seven years ell costs one-third as much as an adult, and consesquarity the expense per family would not exceed twenty-one pounds; but, to do it liberally, let us say -twenty-five pounds; and thus we come to the conclu-

sion, that for fifty pounds a-year, a parish of one thousand people may free itself for ever from the expense and misery attendant on an unemployed peasantry. It is just one shilling a-head on the population. Hitchin parish it would come to two hundred and fifty pounds a-year, and we pay nearly double that amount annually for the support of surplus labour. I think, therefore, that a good system of emigration would be a measure of happiness to the individual, economy to the parish, and prosperity to the kingdom. As to the numbers who might be induced to go out, I think we ought not to argue against the probability of a large emigration from the experience of past years, because, hitherto it has not been conducted on any intelligible system; it has not been much encouraged either by Government or by parishes, nor have pains been taken to diffuse information respecting it; but, under all these disadvantages, there actually went out sixty-five thousand last year from the United Kingdom; if that number could be only doubled, it would be always something; but I think it would not be too much to expect to raise it to two hundred thousand; and I would suggest that some such system as the following should be adopted:—let there be an office in Canada to which every settler should send word how many labourers he would employ, at a given rate of wages, the next year; and let this list be sent home, and the number required be made known in England by about Christmas. Individuals or parishes would immediately treat with Government, would pay into the Bank of England the stipulated price of the passage, and would put their emigrants on board ship on the day prescribed, after which the Government should

be at the sole charge of conveying them to their respective employers. They should be apprenticed or bound to their masters for five years, during which period their masters should retain a shilling a week each from their wages until the expenses of their passage were repaid, and which might be remitted through the Government to those who advanced it. But though a well-ordered self-supporting system like this might be established, and probably will in process of time, yet, at the beginning, the parishes must be content to bear the expense, which, (supposing they never got a farthing back) would be less than they now incur.

And, in considering the advantages of emigration, let it be always borne in mind that every man who tills the earth in Canada helps to maintain a manufacturer in Lancashire; and that to it we are indebted for all our vast trade with our colonies, and with the United States; our trade with British North America, alone, employs twenty thousand seamen, and four hundred and seventy thousand tons of shipping. I have said nothing of New South Wales, because Canada is most easily got at; but it possesses advantages which will ultimately outweigh the inconvenience of the longer voyage, and the tide of emigration will set in towards that quarter. And what man is there who does not exult at the prospect of planting at the opposite extremity of the globe another nation of Englishmen, greater and mightier than we, to spread the blessings of Christianity and civilization over the dark islands of the Pacific and Indian Oceans. to have dominion over them, and subdue them! It is presumptuous to speak too confidently of the designs

of Providence, but I do entirely believe that this unexampled increase of our people is intended to compet
us to go forth and take possession. England seems
now to be the chosen nation; our language, our manners, and our religion, are fast spreading over North
America, the Cape of Good Hope, India, and Australia. It is without example in history that any nation
should rule, and occupy, and people regions so vast
and so distant. "For ask now of the days that are
past, which were before thee, since the day that God
created man upon the earth; and ask from the one
side of heaven unto the other, whether there hath been
any such thing as this great thing is, or hath been
heard like it?"

LETTER VI.

AGRICULTURAL RETURNS .-- PUBLIC WORKS.

THERE is one more subject connected with the agriculture of the country which may as well be mentioned now,—I mean the procuring of periodical returns of the number of acres of each species of produce grown in England. The necessity for keeping a steady eye upon the state of our agriculture must be apparent to every one who reflects upon the limited extent of surface of the kingdom, and the rapid increase of our numbers (which, for Great Britain and Ireland, amounts to about eight hundred a day.) The surface of England and Wales contains about 37,000,000 acres, and the annexed table shows the number of acres per head at each of the three

following periods, assuming that the population will sustain its present rate of increase:—

In 1801 .. 9,000,000 .. 4
1821 .. 12,000,000 .. 3
acres per head.
1851 .. 18,000,000 .. 2

From which it is obvious, that in 1851 there will not be food enough grown in England to support the people, unless, by that period, we can contrive to make as much grow upon one acre as grew upon two in the beginning of this century. Having already taken measures for ascertaining the periodical increase of our numbers, we ought also to have official information of the increasing or decreasing capability of the soil to maintain them: for which purpose I would suggest that, at the proper season of the year, a sufficient number of printed forms should be issued from the Secretary of State's office to some individual in every parish, whose business it should be to deliver one to every occupier of land in the parish, and he should be required, under a small penalty, to fill it up, and send it back by a given day. The individual charged with the parish returns would then digest them all into one, and send it by the post to Whitehall, where a digest should be made of them for each county, as well as for the whole kingdom, and the results should be published in the London Gazette.

The number of printed forms required, and consequently the expense of printing them, might be ascertained from the population returns, in which the number of occupiers of land in each parish is stated. It might take, perhaps, from 150,000 to 200,000. The trouble to the farmers would be too inconsiderable for a moment's consideration. It could not take

auman ten minutes to put down on paper how many acres of wheat and of other things he had in the last year. It might take the overseer a few hours to digest his perish returns; and the person employed in the Secretary of State's office to arrange the whole might be employed upon it a few weeks or months; but the thing is obviously feasible, and would certainly be fruitful of important practical inferences. Known ing the state of the entire surface of the kingdom, we: could judge more accurately of its capability of increased production, and should probably be able to: set at rest many difficult questions upon such points as corn laws, emigration, cultivation of waste lands, &c. We should also see more exactly how agriculture was affected by the imposition or repeal of particulartaxes, and should probably find that many effects attributed to them were owing to something else. Many facts in regard to the spoor, which now appear anomalous, or are attributed to wrong causes, might probably be explained by the contemporaneous increase or decrease of some particular sort of produce. If tithes should be commuted, if steam power should be generally used instead of horses, - if any: great machanical inventions should take place, we should be able to appreciate the consequences with accumous The progressive spread of new crops, such as Swedish ternips, become, mangel wurtzel, &c. might be seen and noted, as well as any change in the national diet. se from bread to potetoes, militare been to tes, prothe like. We should have the means of essectaining any increase or descesse in the fertility of the soil and the effects of high and law prices upon production. I Into many important statistical discussions a measure of this mature would introduce the same precision as the thermometer has conferred on all questions regarding heat: But there is one advantage remaining, which alone. I think, worth more than all the trouble of corrying this scheme into practice, -- I mean that of keening the mankets much more steady throughout the year. Presuming that the returns could be published by Michaelmas or soon after, every farmer in England would know how many acres of wheat, for instance, had been grown that year, and he would know whether the number was greater or less than the swerage, and consequently whether the supply was likely to exceed or fall short of an average demand. It would also give us timely notice of an approaching accreity. I might mention the late alteration of the hear laws, and its effect upon the growth of barley, as a subject which would have received such light from seturns of this mature.

The only recourse get mentioned for giving conployment to our surplus labourers, is the cultivation of the soil; but even supposing it capable of
employing every one of them, a considerable time
muchatil clapse before measures sufficiently extensive
could be taken for that purpose; and the empedient
which appears to see to be most available in the most
time, in the excention of public works. Unifer the
present system, the parish labourers are supported
through they winter in idlences, not wholly, but in
great parts and much of the work of which they are
capable, is, therefore, entirely lost to the community.

Single parishes are not of themselves competent to undertake works of this nature, because they generally extend into many parishes, and nothing can be done in such cases unless they all agree, which they never Suppose, for instance, it were desired to make a canal or a railway from Hitchin to Biggleswade, it would be a hopeless task to seek the co-operation of all the parishes through which it must pass. higher authority is, therefore, wanting; such, for instance, as a Board of Internal Improvements, composed of engineers and others, who should examine into the merits of projects of this nature, and should have power to authorize the execution of such as they might approve. Suppose such an undertaking to cost twenty thousand pounds, and that for every hundred pounds subscribed the parish should have the right of sending one man to be employed upon it; and suppose the parish of Hitchin to be desirous of sending ten men to be so employed, they might borrow the thousand pounds required, pay the interest out of the saved wages of the ten men, and, when the canal was complete, they might sell their shares, and repay the thousand pounds. When I say that all this might be done, I am perfectly aware of the very different results which also might take place. Visionary schemes might be undertaken, or reasonable projects might be mismanaged, so that the parish should lose every farthing it had advanced; but it seems not impossible to devise such a plan as should secure the proposed advantages, and ward off the contingent evils; and no subject can be suggested more worthy of the attention of those who have talents and leisure for such investigations.

LETTER VIL

EDUCATION.

I HAVE now come to that part of the subject which appears to me to be incomparably the most important of all—the education of the people; by which I mean so teaching and training them in their youth, that when they grow up, they may be more able and more disposed to do their duty in that state of life unto which it may please God to call them. With whatever diffidence it may be becoming to urge other untried schemes of national improvement, I conceive that, on this subject, we are entitled to speak boldly, because we have here the authority of revelation. From it we learn that rich and poor have equal Christian rights and duties; and that it is the principal business of all men on earth to form their character by acquiring a knowledge of the relations they stand in to the rest of the universe, and by practising the duties which arise out of those relations. They whose care is confined to the temporal comforts of the people have got hitherto paid sufficient attention to the intimate connection subsisting between the morals and the prosperity of communities. In this and most other countries the peasant's life has hitherto been one unvarying round of toil to procure him food, and sleep to fit him for toil. That men should labour for their food-that, in the sweat of their brow they should est bread, is the command of Providence, and is not to be either swaded or complained of. But the sustentation of life has in it an ulterior object; the body is to be kept in health, in order that the mind may be in a condition to acquaint itself with the objects of its creation-to reflect on its own state, and to conform itself to the precepts of revelation. But this course of thought and discipline is so far from the common tenour of the peasant's life, that the very mention of it excites a feeling of incongruity, if not of ridicule; and nothing can show more strongly than this feeling how much the present state of things is out of harmony with revealed truth. It is impossible to argue the question reasonably, without making religion bear a prominent part in it. Our sense of duty-our moral sense, as it has been called-is an emotion arising out of the contemplation of the relation which we stand in to some other being. The emotion, for example, of Love towards the Deity arises immediately from our perception of his Goodness towards us, in like manner as the emotion of Fear is excited by a perception of his Power, and of Reverence, by that of his Wisdom; and none of these emotions can arise without a perception of the corresponding attribute; and the force and fervour of the emotions will be in proportion to the certainty with which we know, and the frequency with which we contemplate, those attributes. these sentiments become habitual to the mind, they will arise spontaneously to check our inclination to do any act which would outrage them; and, besides other effects, they will have a strong tendency to produce those moral qualities on which worldly prosperity is chiefly dependent-namely, honesty, industry, temperance, and frugality.

We do not deal fairly by the poor. In our religious controversies we are forward enough to contend that good actions can only spring from sound faith, that is to say, a conviction of the truth of Christianity, growing-

out of an adequate knowledge of its evidences; but we do not give them the required knowledge, and yet we reproach them with the want of those fruits which we ourselves confess will grow from no other root. "There is no straw given unto thy servants, and they say unto us, ' make brick;' and behold thy servants are beaten, but the fault is in thine own people."

But, besides the improvement of the morals, there are many other blessings attendant on the diffusion of knowledge. Educated men would best know what, under any circumstances, was most for their own good; and they would know how to set about effecting If any other place, or any other occupation, presented more advantages than their own, they would immediately avail themselves of it. Intellectual culture would introduce a more refined tone into their feelings and conversation, and would banish much of that low profligacy which we see and lament. Such a people would be at shelter from political delusion, as well as from fanaticism in religion. Some men, I believe, object to education from an unhappy association in their minds between it and popular discontent; but, on the contrary, it seems clear that a knowledge of their rights and duties will have a tendency to secure for the people all to which they are entitled, and to prevent them asking for any thing else. would not then be so easily led away by factious demagogues; a man of education would not send a Member to Parliament for promising that the pint pot should hold a quart, or the shilling loaf be sold for sixpence. In all contests betwixt the Government and the people, one party, at least, must be wrong; but there is nothing which so surely keeps the Government thein doing any thing wrong as the knowledge that every step is watched by an intelligent people. And if, on the other hand, the people are wrong, it must be owing a the very ignorance which we propose to remove, or they cannot possibly have any interest in misgoverning homesless.

Within the next fifty years there will necessarily be great changes in the constitution of society; and on our decision it depends whether or not the mass, whose physical force is irresistible, shall be endowed with the restraints of reason and religion. Who would like to pass his life in the same room with a raving or an idiot giant? It is not necessary to contend that education will be a specific remedy for all ills; whoever waits for that will wait for ever—it is sufficient to show that it will do a great deal of good.

I urge this topic with the more earnestness, because I think it the Alpha and Omega of permanent improve-The precepts of Christianity require it-it is called for by the advancing state of rival nations-it is made necessary by political circumstances at homethe want of it stands in the way of every domestic If we desire to address the higher improvement. classes, the newspapers and reviews are open to us; but how are we to make ourselves heard by the mass of the people, when we wish to convey any useful knowledge, or to dissipate any popular delusion? those who will give themselves the trouble to think the matter out, no extraneous proof will be required; but there are those to whom examples address themselves with greater force, and I would request them to look at New England, Scotland, and Switzerland, and to contrast their condition with that of Russia, Spain; and

Turkey. France is making great efforts to educate her people, and will soon head us if we do not get on. As a nation, we cannot afford to waste the talents of our people in the shameful way we are doing. Nature gives us men capable of advancing human happiness as much as Watt or Jenner, and we set them to break stones upon the highway. There is nothing at all absurd in supposing that men are now passing their lives in total ignorance, who, under better auspices, might have contributed as much to the wealth of the nation as Arkwright or Wedgewood!

It is most desirable to engage the public attention to these matters, now we have an interval of repose. A year and a half ago, in the memorable winter of 1830-31, the aspect of things was such that no man felt his person or his property secure; the very foundations of society were rocking beneath our feet. We then perceived the inconvenience of popular ignorance; we vowed (as is usual in such cases) to do many notable things, if we only escaped from the tempest which then was raging; and, in short, nothing was heard of except plans for bettering the condition of the poor. "But when Pharaoh saw that the rain, and the hail, and the thunders were ceased," &c.

LETTER VIII.

EDUCATION.

To education, as defined in my last Letter, I do not think any rational objection can be made; and I now proceed to consider what means we possess of diffusing it. The time which the poor can spare from their daily labour will always be limited, but will be sufficient to produce great effects, if it be carefully employed; and if we cannot teach all that is desirable, let us teach half, or a quarter—let us never refuse to do all that we can, because we cannot do all we wish.

Every child may be able to read and write by the time he is eight years old, and almost every child may remain at school till twelve, many till fourteen or fifteen. Within those limits children may be taught the most useful applications of arithmetic; such, for instance, as have reference to benefit clubs, rates of interests, and tables of mortality, book-keeping, and the elements of mechanics and chemistry. When their necessary avocations take them away from the day school, the bulk of them may attend school in the evening for an hour or two, where they may learn the elements of domestic economy, the laws of heat, the mode of ventilating and fumigating houses, the principles of improved agriculture, and the simpler trades, and mechanical inventions; and may receive explanations respecting the evils of combinations amongst artificers, the principles which regulate the rate of wages, &c.; and finally, they may all receive instruction for three or four hours every Sunday for an indefinite time, which would be by far the most important branch of the system. Their Sunday reading should comprise a thorough knowledge of the contents of the Bible, the evidences of its genuineness and authenticity, the fulfilment of prophecy, the past and present state of the Jews, the times and circumstances in which the several pealms and epistles were written, the manners and customs alluded to in Scripture, and the testimony borne by tradition and by modern science to the truth of several facts mentioned in the Mosaic History—such as the age of the world, the fall of man, the deluge, and the descent of mankind from a single pair.

I would next introduce the study of natural history, accompanied always with such reflections as raise it into natural theology. There seems to be a peculiar fitness in teaching natural theology to those who pass so much of their time in the open air as agricultural labourers. Suppose every young man was led fairly and leisurely through a few such books as Palev's Theology, White's Natural History of Selbourne, and Arnott's Elements of Physics: the process of getting up these books would be in itself delightful; and, without being a prophet, or the son of a prophet, I venture to foretell that the knowledge thus acquired, the curiosity infused, and the mode of reasoning made habitual, would elevate the lads far above the present average of intelligence. Paley's own words on this subject are too beautiful to tire, though a thousand times repeated. "In a moral point of view I shall not, I believe, be contradicted, when I say that if one train of thinking be more desirable than another, it is that which regards the phenomena of nature, with a constant reference to a supreme intelligent author. To have made this the habitual sentiment of our minds, is to have laid the foundation of everything which is religious. The world thenceforth becomes a temple, and life itself one continued act of adoration."

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Not one among us but would wish the minds of his own children to be imbued with knowledge and feelings of this exalted nature; but do we grudge them to the poor? or do we think a smaller acquaintance with the doctrines and duties of religion enough for them? In truth, no man is so profane—but we act as if we thought so; and I fear that, without our being aware of it, there exists in many of us a lurking dash of pride which revolts at the contamination of such absolute equality. The Lieutenant is to be saved before the Ancient; a long way, therefore, before the rank and file.

Besides the direct instruction imparted by the teachers. I should expect that much would be incidentally acquired by the boys themselves in reading for amusement; the habit of doing which I should labour very assiduously to infuse. It may be enjoyed under all circumstances; it is cheap; it leads to an increase of knowledge and virtue; and, moreover, the poor have few other amusements. Do we expect, then, that the toil-worn labourer will prefer his book to his ale and his supper! Assuredly not. "Pour ofter les meilleures choses il suffit de les outrer." On the contrary, we believe that he will be able to provide himself with more ale and a better supper. But there are times and seasons, there are winter evenings, there are hours of sickness, and, above all, there are Sundays. Every man is conscious that in certain states of the mind amusement of some kind or other is indis-Now, there is scarcely any amusement open to the labouring man but the alchouse. Reading may not be able to contend on equal terms with the attractions of the glass and the song, but it is wise to introduce an antagonist principle, be its power greater or less; and unless the poor be provided with some innocent relaxation, we are not quite in a condition to cast stones at them. We fare sumptuously every day;

we attend parties; we hunt, shoot, read, and enjoy many modes of pastime; and we call a poor man hard names if he seek an hour's relaxation from much severer labour, in the only way which is open to him! "See how you Justice rails upon you simple thief. Hark in thine ear; change places, and handy dandy, which is the Justice and which is the thief?"

If there still remain any man of such gloomy and desponding temper as to suppose that the increase of human intelligence can lead to permanent disorder in the commonwealth, I beg him to remember that the question is now, what culture can be bestowed upon the heads and hearts of a people that can read? Provision has been made, almost universally, for teaching the people to read; and the question is, whether we shall make that talent beneficial by training their minds to virtue, and supplying them with wholesome instruction, or whether we shall abandon them to the propagators of sedition and blasphemy? The mere naked ability to read is not a blessing in itself, and there might be reason with those who, fearing its perversion to bad ends, would have withheld it altogether; but there is none with them who, seeing its existence and its power, refuse to give it a proper direction. I know that it is not an uncommon practies for a large company to be collected in an alchouse in church time on Sunday, and for one of the party to stand up and read inflammatory newspapers to the rest: educated men would believe as much of these lucubrations as might be true-ignorant men have no choice but to swallow them in the lump. Perhaps some of these respectable authorities may assert that all the ills which man's clay-mixture undergoes are

owing to the tithes, the House of Lords, or the Monarchy—and perhaps the contrary may be easily proved; but the difference is, that the enemy has taken the trouble to make the assertion, and that we have not taken the trouble to disprove it.

For having thus made agriculture and education the two main pillars of national prosperity, I am happily able to adduce the very highest human authority. In Dugald Stewart's Preliminary Dissertation, prefixed to the last edition of the Encyclopædia Britannica, he quotes the opinion of Lord Bacon on these two subjects. His words are-"What I wish chiefly to remark at present, is the paramount importance which he (Lord Bacon) has attached to the education of the people, comparing, as he has frequently done, the effects of early culture on the understanding and the heart, to the abundant harvest which rewards the diligent husbandman for the toils of the spring. To this analogy he seems particularly anxious to attract the attention of his readers, by bestowing on education the title of the Georgics of the Mind, identifying, by a happy and instructive metaphor, the two proudest functions intrusted to the legislature—the encouragement of agricultural industry, and the care of national instruction."

These are the opinions of one Chancellor of Eagland, and we have now another who well knows their value; and since the time when they were first pronounced by Lord Bacon, there has not lived a man, either on or off the woolsack, from whom their reduction into practice might be more reasonably expected than from Lord Brougham.

LETTER IX.

COUNTY SOCIETY.

I HAVE thus endeavoured to condense into the narrowest possible compass the thoughts which had occurred to me respecting the remedial measures most applicable to the present disordered state of society; and I now venture to suggest the establishment of a County Association for the purpose of carrying those measures into effect.

The principal topics adverted to in the preceding Letters have been Agricultural Schools, Scotch Banks, Emigration, Public Works, and Popular Education.

A parish is too small a district to undertake these things, as will be evident from a mere inspection of the list, and a National Society would be as much too large as a Parish Society would be too small. It could neither obtain the local knowledge, nor possess the confidence required for conducting its operations with A few hundred pounds a-year would be but a trifle, compared with the objects in view, and the interests at stake; and I conceive that, judiciously managed, that sum might be sufficient. Supposing such a society formed, they might proceed to the establishment of agricultural schools in some such manner as the following:-They should inquire for some intelligent farmer, who is already in the habit of taking pupils, and who has in his house sufficient accommodation for a considerable number, and they should provide him with a scientific tutor. In the morning, the boys would employ themselves, as they do now, in personally observing and assisting in the affairs of the farm, and, in the evening, they would

receive from the tutor instruction in chemistry, botany, the structure and diseases of cattle, the knowledge of insects, and of the weather, natural philosophy, and book-keeping. I suppose that a couple of years well employed would be sufficient to give young men a competent knowledge of these matters; I have no doubt they would study them with avidity, and I am sure their practical farming in after life would be greetly improved. The society must provide a library, museum, and philosophical apparatus. A difficulty might present itself, in the first instance, in finding a proper tutor; but that would only be at the beginning; for the pupils of this year would be the tutors of the next, and so a constant succession would be provided. The institution should be advertised in the county papers for a twelvemonth, and the members of the society should use their influence in getting boys sent there at first, so as to set the thing going, and then there could be hardly a doubt of its success; for a farmer, in choosing a school for his son, would naturally say, (if the charge were not increased.) "Whether these things be of any use or not, we shall get them for nothing—the boys will receive the usual instruction, and this besides, be it worth little or much mand, therefore, by all means let us have it." landed proprietors know their own interest, they will net refuse to co-operate for a purpose like this. The productiveness of the soil not being fixed and absolute. but verying with the skill of the husbandman, improving his skill is precisely the same in its effects as inerensing the fertility of the soil. By the by, the London University or the King's College might contribute materially to the progress of agricultural

science, if they would either establish a separate professorship of rural economy, or (which perhaps would be better) engage the professors of the several sciences to give two or three lectures, each on the applications of his peculiar science, to the purposes of agriculture, and so arrange these supplementary lectures that they might be attended as one course.

With regard to the Scottish system of banking, I am perfectly aware that, during the existence of the Bank of England charter, we are prohibited by law from introducing it. In the meantime, the Society might lay the surest foundation for its success, by diffusing a knowledge of its principles, and of the benefits likely to result from it.

As to public works, I am free to confess that I think the execution of them would belong rather to the Government than to a County Society; but, as the advantage to the poor from this source will be more obvious, and more immediate than from any of the other measures proposed, the Society might do the state some service, if they would ascertain what undertakings were feasible, and would press them upon the attention of the Government.

But, in promoting emigration, the Society might take a more active part. The chief obstacles to it now are the want of knowledge, the want of funds, and the dislike to leaving home. The remedy for the want of knowledge is sufficiently obvious; we see by the papers that numbers of emigrants are daily embarking from almost every port in the kingdom, and the Society should obtain precise information as to the details of the several plans adopted; they should also procure and print some of the letters which will, of course, be received from many of these emi-

grants respecting their proceedings and their success in the colony. If, in fact, the change be for the better. s general acquaintance with these details would make other men anxious to emigrate—would stimulate them to provide themselves, as far as they could, with the necessary funds, and would induce parishes to supply what might be wanting. The first two difficulties being thus obviated, we come to the third, which the society might greatly reduce by devising a system of combination, and so contriving that all those who wished to emigrate from this county might go together if they pleased. It requires some nerve to face the Antipodes single-handed, to go forth from your own people and your father's house to the ends of the earth, among total strangers, not knowing what to do nor whom to ask. In such disheartening circumstances it is a great thing to have "kenn'd folk" about you; and a man would find his home-sickness very much alleviated if he were to go out with 200 other Hertfordshire people, who should not only accompany him on the voyage, but live with him in the colony. men would feel themselves under the protection of the society, and would be preserved from the hardships and disappointments to which emigrants have often been subjected; they have gone at the wrong time of the year, or to the wrong place, or the wrong something, and have had much to suffer in consequence; but the Society might furnish the emigrants with proper instructions at all points, and have an agent in the colony to receive them.

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With regard to education, the business of the Society would be to collect and compare the best systems now in use, either in Europe or America—to select from them whatever valuable hints they afford, and thus to form as perfect a system as they could devise for the education both of boys and girls; an account of which they would print and circulate. They would then institute a few model schools here and there, and would procure a supply of all such books or implements as this system might require; they would also publish lists of the books most suitable for parochial libraries. and would occasionally print and circulate cheap books and tracts of their own. I confess I think it difficult to overrate the good effects that might result from Its influence over the human mind is education. almost omnipotent. If men are born equal, to what else than the teaching and training received in youth are we to attribute the difference between Englishmen and Frenchmen, Jew and Gentile, Greek and Turk? If the saint and the savage were to change circumstances, without doubt they would change characters too.

But, besides attending to the particulars above suggested, the Society might be of great use in forming a centre of communication and a bond of union between the smaller Benevolent Societies in the county. might publish an annual account of the state of the several parishes, so that, if one were better conducted than the rest, it might serve as a model; and, if another were much behind, it might be excited to improvement. The public would know what beneficial institutions existed in the county, and they would know where to go if they wanted advice or assistance in establishing them elsewhere. If it were desired to open a Dispensary, or a Savings Bank, or a Sunday, School, in any place, the inhabitants would have before them the experience of some similar thing which had been found to answer in their own county; and a good example exhibited near home would have double the

influence of one at a distance. We should live more in the presence of each other, and should stimulate one another to exertion.

Our fate is in our own hands—nothing but manly and sustained exertion can clear away the difficulties which supineness has suffered to thicken round us; but there is no cause for despair. There never was a time when there existed more intelligence or public spirit than at this day; but hitherto they have wanted concert and direction. Let an Association be formed, and let it be remembered by those whom Providence has blessed with wealth and education, that it has imposed on them the obligation of using those talents for the benefit of their neighbours. If they neglect their duty—if they sleep upon their post—they prove themselves unfaithful stewards to their bountiful Master, and assuredly they shall "have their reward."

The stake is as great as the most ambitious can wish to play for. On the one hand, if we fold our arms in idleness, the squalid poverty, the hopeless destitution of the people must go on increasing, till it brings on, first, universal want, and then a servile war; and, on the other hand, if every man, whether possessed of one talent or of ten, will fairly and honestly exert himself in his station; if all will but do their best to develope and bring out the intellectual capabilities of England, "there seems," to use the admirable words of Sir John Herschel, "there seems scarcely any conceivable limit to the degree in which the average physical condition of great masses of mankind may be improved, their wants supplied, and their conveni"ences and comforts increased."

WILLIAM HAWKINS.

Hitchin, Herte, June 11th, 1832.

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